

Magnetoliposomes as carriers for promising antitumor thieno[3,2-*b*]pyridin-7-arylamines: photophysical and biological studies

Ana Rita O. Rodrigues,^a B. G. Almeida,^a Juliana M. Rodrigues,^b Maria João R. P. Queiroz,^b R. C. Calhelha,^c Isabel C. F. R. Ferreira,^c A. Pires,^d A. M. Pereira,^d J. P. Araújo,^d Paulo J. G. Coutinho^a and Elisabete M. S. Castanheira^{a,†}

^a Centro de Física (CFUM), Universidade do Minho, Campus de Gualtar, 4710-057 Braga, Portugal.

^b Centro de Química (CQUM), Universidade do Minho, Campus de Gualtar, 4710-057 Braga, Portugal.

^c Centro de Investigação Montanha (CIMO), ESA, Polytechnic Institute of Bragança, Campus de Sta. Apolónia, 5301-855 Bragança, Portugal.

^d IFIMUP/IN - Instituto de Nanociência e Nanotecnologia, R. Campo Alegre, 4169-007 Porto, Portugal

Supplementary Information

1. Size distribution of SMLs of the lipid DPPC by Dynamic Light Scattering (DLS)

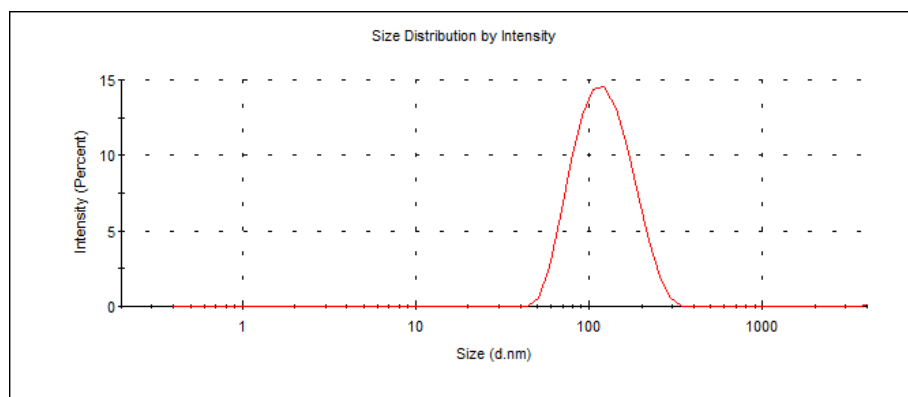


Figure S1. Size distribution (by intensity) obtained from DLS for solid magnetoliposomes of DPPC containing manganese ferrite nanoparticles, at 25 °C.

2. SEM image of SMLs of the lipid DPPC

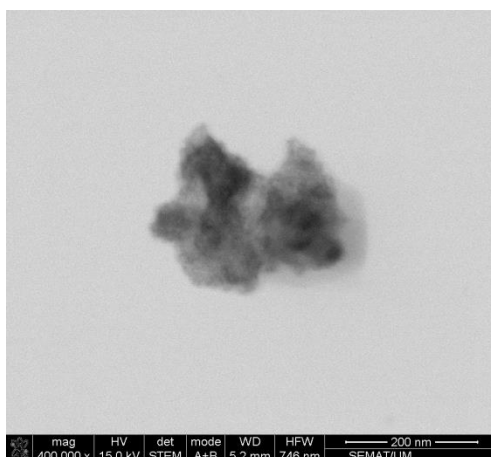


Figure S2. SEM image (with application of a negative staining) for solid magnetoliposomes of the lipid DPPC containing manganese ferrite nanoparticles, showing an aggregate of two magnetoliposomes.

3. Growth inhibitory activity of drug-loaded solid magnetoliposomes

Table S1. Growth inhibitory activity of drug-loaded solid magnetoliposomes on various human tumor cell lines and non-tumor porcine liver primary cells (PLP2).

Cell line	GI ₅₀ values ^{a,b} (μM) for compound 1		GI ₅₀ values ^{a,b} (μM) for compound 2	
	DPPC SMLs with compound 1	DPPC/PEG-Fol (95:5) SMLs with compound 1	DPPC SMLs with compound 2	DPPC/PEG-Fol (95:5) SMLs with compound 2
HeLa	> 7.5	> 7.5	> 7.5	> 7.5
MCF7	> 7.5	> 7.5	> 7.5	> 7.5
T3M4	> 7.5	> 7.5	> 7.5	> 7.5
NCI-H460	> 7.5	> 7.5	> 7.5	> 7.5
PLP2	> 7.5	> 7.5	> 7.5	> 7.5

^a GI₅₀ values correspond to the concentration which inhibited 50% of cell growth. Results are from three independent experiments (performed in triplicate).

^b Maximum compound concentration tested: 7.5 μM.